IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Breaker, *et al.*
SERIAL NUMBER: 09/830,905   EXAMINER: Mary M. Schmidt
FILING DATE: August 8, 2001   ART UNIT: 1635
FOR: MULTIDOMAIN POLYNUCLEOTIDE MOLECULAR SENSORS

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

MAY 0 8 2003

TECH CENTER 1600/2900

AMENDMENT AND RESPONSE

This paper is in response to the January 2, 2003 Office Action in the above-identified patent application. With a one-month extension, this response is due on or before May 2, 2003.

Applicants submit herewith a Petition for One Month Extension of Time and the appropriate fee to cover the petition. The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 23239-201 NATL.

In the Specification:

Please replace the abstract of the invention with the following rewritten abstract:

--Multidomain polynucleotides, which are responsive to signaling agents and have at least three domains which can be partially or completely overlapping or nonoverlapping: an actuator (catalytic or reporter) domain, a bridging domain, and a receptor domain, are provided. In a typical embodiment, a signaling agent interacts with the receptor domain, which changes conformation or otherwise influences the bridging domain so that the catalytic or reporter function of the actuator domain is stimulated or inhibited. In some ribozyme embodiments, ligand-specific molecular sensors composed of RNA are created by coupling preexisting catalytic and receptor domains via novel structural bridges, wherein binding of a ligand to the receptor domain triggers a conformational change within the bridge, and this structural reorganization dictates the activity of the adjoining ribozyme. Processes for allosterically selecting other multidomain polynucleotides typically involve mixing and matching domains to optimize binding or other signal response and/or reporter activity.--